INSTRUCTIONAL TECHNOLOGY IN GRADUATE PSYCHOLOGY DISTANCE EDUCATION: TRENDS AND STUDENT PREFERENCES

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ABSTRACT

Although distance education continues to expand in postsecondary institutions, little research regarding distance education methodology in applied graduate psychology programs is currently available. This exploratory study examined technology, resources, and instructional components in graduate school psychology distance courses. The results indicated that Blackboard and Skype were the most frequently utilized technology components in both online and hybrid school psychology courses. Tests, quizzes, and assignments were rated as the most helpful and valuable instructional components. Other helpful resources in distance education courses included access to advanced technology, in-person meetings with instructors, and technology support staff. The implications for training programs and future research are also discussed.

Keywords: Distance Education, Graduate Psychology, Instructional Technology

INTRODUCTION

The number of online enrollments in higher education has increased at a faster rate than overall higher education enrollments (Allen & Seaman, 2016). As of 2016, over six million students were taking at least one distance education course (Seaman, Allen, & Seaman, 2018). Allen and Seaman (2016) indicated that 38.7% of graduate students (n = 374,018) reported taking courses through distance education. Despite the increase in the number of distance education courses, the use of distance education in applied graduate psychology programs, particularly school psychology programs, has been relatively low (Hendricker, Saeki, & Viola, 2017). Distance education, for the purpose of this article, refers to courses that primarily utilize instructional technology to deliver course content and facilitate interaction between instructors and students when they are geographically separated (Higher Learning Commission, 2018). Distance education can occur synchronously (i.e., in real time) or asynchronously, which allows for maximum flexibility in student schedules (Higher Learning Commission, 2018).

The National Association of School Psychologists (NASP) indicated there has been a recent plateau in the growth of new school psychology programs, despite the continued shortage of school psychologists (NASP, 2017). Distance education has the potential to expand the reach of education and training in school psychology, particularly for candidates whose geographical distance from a traditional university campus prevents them from accessing training in school psychology programs. Distance education has many advantages for school psychology students, including increased flexibility and convenience compared to face-to-face courses (Viola, Saeki, & Hendricker, 2019). A recent survey of school psychology programs

found that 32% to 35% reported offering course work utilizing some form of distance education (i.e., online or hybrid courses), for the past six years (Hendricker et al., 2017). However, Hendricker et al. (2017) found that few courses were offered through distance education, with most of these classes identified as being theory based. School psychology instructors reported that they had little training in teaching distance education and had challenges translating material into online formats. NASP (2017) referenced the utilization of Learning Management Systems (LMS; e.g., Blackboard, Moodle, Canvas) as well as other technologies, including email, Skype, Dropbox, and Google Docs, in school psychology distance education courses. However, no studies have assessed which technology components are currently used in school psychology distance education courses. School psychology program directors not only teach courses within their program and retain knowledge about courses within their program, but they also have the administrative privilege to select and structure their program's use of technology components and distance education. Many universities are offering more opportunities to increase distance education in school psychology and other applied graduate psychology programs; therefore, more research about instructional technology and resources, from both school psychology program directors and students, is needed.

STUDENT PREFERENCES FOR INSTRUCTIONAL TECHNOLOGY

Although little research currently exists in regard to school psychology students' preferences about instructional technology (Hendricker et al., 2017), other studies in similar fields have examined factors that enhance the student learning experience in distance education courses (Nguyen, 2015). Learning occurs in a social context in which students are socially present and interact and collaborate with one another (Cui, Lockee, & Meng, 2013). In both smaller (Ward, Peters, & Shelley, 2010; N = 95) and larger samples (Castle & McGuire, 2010; N = 4,038), studies find that graduate students prefer online courses that emphasize synchronous, interactive activities that more closely resemble traditional classroom interactions. Course satisfaction is also increased when faculty scaffold and facilitate appropriate interactions between students and instructors (Cho & Kim, 2013; Fedynich, Bradley, & Bradley, 2015), which leads to increased student participation (Wu, Tennyson, & Hsia, 2010).

While establishing a sense of community can be more difficult in online courses as compared to face-to-face courses (Song, Singleton, Hill, & Hwa Koh, 2004), numerous technologies are available to assist instructors teaching distance education courses in creating a more synchronous online environment (Garrison & Arbaugh, 2007). Synchronous video conferencing applications such as Skype, Adobe Connect, GoToMeeting, Zoom, and Google Hangouts allow instructors to connect face-to-face in real time with their students over the internet. In addition, many of these sites and programs allow instructors to share their screens and documents for live demonstrations. Instructors can also facilitate interaction between students with classroom discussions and group assignments. Technology such as interactive documents (e.g., Wiki documents, GoogleDocs) allows students to access one document and collaboratively make changes directly from the web browser.

Graduate students also emphasize the importance of organization within their distance education courses, including clear course goals and objectives, explicit assignment deadlines, and timely instructor feedback (Espasa & Meneses, 2010; Song et al., 2004). Numerous learning management systems are available that enable instructors to structure their online classroom and precisely organize it. Common learning management systems, such as Blackboard, Canvas, Moodle, and Desire2Learn, contain features such as areas for syllabus, course outlines, announcements, email, assignments, assessments, and content folders, and they allow instructors to create a multidimensional instructional area. Instructors can also attach and link videos, recorded lectures, and websites.

Innovative technology has the potential to remove the physical boundaries of the traditional classroom and allow instructors to offer many of the quality instructional components offered in a traditional face-to-face course. This allows instructors to teach from greater distances with increased flexibility students who may not otherwise have access to advanced education. Currently, it is unclear what types of technology school psychology programs utilize for distance

education (NASP, 2017). Assessing the trends in distance education courses by surveying directors of school psychology programs may help to establish the use of technology in these courses. Additionally, there is limited information about graduate student preferences for technology and instructional components and the resources available in distance education in applied graduate psychology training, especially in school psychology, which presents a critical gap in the literature. Sampling both students and program directors allows for a comparison between current trends and student preferences. Information about school psychology graduate students' preferences for specific forms of technology and instructional components in distance education can guide applied and professional training programs to tailor their courses, better support their students in becoming competent and effective practitioners, and decrease shortages of school psychology practitioners in the field.

PURPOSE OF THE STUDY

The purpose of this exploratory study was to examine the technology, instructional components, and resources used in graduate school psychology distance education courses. There are various terms and definitions related to distance education and learning (e.g., e-learning, online learning, hybrid coursework, etc.). For this study, the term hybrid/blended was defined as courses that are taught using both online technology and traditional face-to-face instruction, with no one component being more than 60%. Online courses were defined as courses that are offered completely online and do not meet face-to-face (Moore, Dickson-Deane, & Galyen, 2011).

The applied nature of school psychology education and training poses unique challenges when translating face-to-face courses into an online format (Hendricker et. al., 2017; Rudestam, 2004). Therefore, this study explored the types of technology resources used by school psychology programs in distance education courses as reported by students taking these courses and directors of school psychology programs associated with these courses. Additionally, this study assessed school psychology graduate students' preferences for instructional components in these courses. Sampling both students and program directors allowed for a comparison between current trends and student preferences. Understanding students' preferences for instructional strategies and resources in distance education courses enables instructors and trainers to better tailor and improve their distance education courses. The theoretical approach utilized to guide the study was based upon prior work highlighting the importance of student perceptions of online learning and its relationship with perceived effectiveness of distance courses (see Haverila & Barkhi, 2009 for detailed information). Proper utilization of advanced technology may improve student and instructor perceptions of the quality of distance education courses.

This is the first study to examine instructional technology and preferences in school psychology training and education. Therefore, this exploratory study used primarily descriptive analyses to answer the following research questions:

1. What types of technology did students and directors of school psychology programs report utilizing in their school psychology online and hybrid/blended courses?
2. What instructional components and resources were considered most helpful and valuable for students who took online and hybrid/blended courses in school psychology?
3. What additional resources and supports were typically available for students who took online or hybrid/blended courses in school psychology?

METHOD

Participants

Participants in this study consisted of graduate students in school psychology programs, and directors of school psychology programs in the United States. The demographics of the student sample are discussed first, followed by program directors in the subsequent paragraph. The final student sample included 97 students who had taken an online course and 82 students who had taken a hybrid course in their school psychology program. The students were asked about their experience with online and hybrid courses separately; therefore, some students may have taken both online and hybrid courses. Of the 97 students who had taken an online course, 55 (56.7%) also reported taking a

hybrid course. The total student sample consisted of predominately female (91.8% online, 92.6% hybrid), Caucasian (84.5% online, 75.6% hybrid), and full-time (76% online, 81.5% hybrid) students. Hispanic/Latino (14.4% online, 18.3% hybrid), multiracial (10.3% online, 7.3% hybrid), African American (5.2% online, 7.3% hybrid), and Asian (3.1% online, 2.4% hybrid) students constituted a smaller proportion of the sample. A majority of the students surveyed were seeking a specialist level degree (58.8% online, 79.3% hybrid), which appears representative of school psychology programs across the United States, as 68% of programs offer training at the Specialist level based on publicly accessible data published on the NASP website (www.nasponline.org). Additional student demographic information for those taking online courses are available in Table 1, while Table 2 outlines demographics for those students taking hybrid courses.

Additionally, directors of school psychology programs who reported that their programs had online courses (n = 21) and/or hybrid courses (n = 19) were included in an additional survey to understand practices that occur within school psychology programs. Although this study focuses on faculty and student perceptions of distance education in school psychology, program directors were included in the sample because the majority of directors in school psychology graduate programs are also instructors in their respective programs; therefore, program directors also have valuable insights on both the instructional and administrative aspects of training in graduate school psychology programs. Directors were asked about their online and hybrid course offerings separately. Some directors (n = 9) offered both types of distance learning courses. The director participant sample consisted of slightly more female than males (53.4% online, 68.4% hybrid) and were from a specialist level degree program (61.9% online, 73.7% hybrid). Additional demographic information about program director demographics is available in 3 and Table 4.

Measures

The researcher-developed School Psychology Graduate Students' Perceptions of Distance Education Survey (Viola et al., 2019) and Distance Learning in School Psychology Training Survey (Hendricker et al., 2017) were utilized for this study. The School Psychology Graduate Students' Perceptions of Distance Education Survey was utilized to investigate instructional technology and additional resources available to students as well as their preferences for instructional components. The Distance Learning in School Psychology Training Survey was utilized to assess instructional technology utilized in distance learning courses as reported by program directors. Viola et al. (2019) found that Cronbach's alpha was .94 for the School Psychology Graduate Students' Perceptions of Distance Education Survey (Viola et al., 2019). As cited in Hendricker et al. (2017), the subscales in the Distance Learning in School Psychology Training Survey ranged from .523 to 1.00.

The School Psychology Graduate Students' Perceptions of Distance Education Survey consisted of 69 items to evaluate the perceptions of school psychology graduate students regarding online and hybrid/blended courses. For the purpose of this article, the questions that focused on instructional technology and student perceptions of instructional components were used. Not including demographic questions, the portion of the survey reported in this study consisted of three main questions:

- What types of technology are utilized in your online School Psychology classes?
- What instructional techniques and resources are most helpful in an online School Psychology course?
- What resources are available to you as you take your online course(s)?

Participants were provided with multiple-choice options and could select multiple responses. In addition, an "other" option was available for additional write-in responses. These questions were asked only to student participants who had indicated that they had taken an online school psychology course. These three questions were then asked again and modified to include the term "hybrid/blended" in place of "online" for those indicating they had taken hybrid/blended courses for their school psychology program.

The Distance Learning in School Psychology Training Survey consisted of 63 items. The survey gathered data from program directors of school psychology graduate programs to understand the prevalence of distance learning in graduate school psychology programs, perceptions of distance learning, advantages and barriers of distance

learning in the field of school psychology, and program outcomes (Hendricker et al., 2017). The data from the survey utilized in the current research focused on the type of instructional technology used in distance learning courses. This question was asked to directors who indicated that their program offered online courses and the wording was modified to learn about those who include hybrid courses. For copies of the full survey and other relevant findings, readers are referred to articles published by Hendricker et al. (2017) and Viola et al. (2019).

Procedures

Graduate students in school psychology programs across the United States were recruited to participate in an online survey (School Psychology Graduate Students' Perceptions of Distance Education Survey) assessing their perceptions of distance education in school psychology. Two hundred and forty emails were sent to all program directors identified in the NASP database across the United States and Puerto Rico during Fall 2016. Program directors were asked to share the study link with their current students by forwarding the email sent by the researchers. Calculating the exact response rate was not possible due to the nature of the distribution (e.g., possibly outdated program director email addresses, redirection of recruitment email to spam folders, program directors not forwarding the email to their students, etc.); however, an estimated response rate if every school psychology student received the email would be 2.3%. This response rate is likely a significant underestimate, as it is unlikely that every school psychology graduate student obtained access to the survey.

Program directors from all school psychology programs in the United States listed on the NASP website were recruited to participate in a similar survey targeting faculty members (Distance Learning in School Psychology Training Survey). The survey was distributed in Fall 2015. For both surveys, participants were recruited via email and survey data were collected anonymously through Survey Monkey, a web-based survey management site. Only the researchers had access to the web page login information and the results were password protected. Participants received a description of the study, a consent form, and a link to complete the survey. After one week, participants received a reminder email. No identifying information was collected and upon completion of data collection, each participant was assigned a random research identification number. The university institutional research review board approved all study procedures.

RESULTS

The results were analyzed using descriptive statistics and information related to each research questions are noted below. In the survey, participants were asked about online courses (i.e., all components of that course are completed in an online format and students do not meet face-to-face) and hybrid/blended courses (i.e., some face-to-face components and some online components) separately. Most of the survey questions allowed participants to check all of the options that applied; therefore, percentages may exceed 100% for each question. Participants were also allowed to skip response questions so the total number of respondents for each questionnaire item varies.

Research Question 1: What types of technology did students and directors of school psychology programs report utilizing in their school psychology online and hybrid/blended courses?

Participants reported on the technology encountered for online and hybrid courses separately. Both program directors (52.4% online, 57.9% hybrid) and students (64% online, 59.5% hybrid) reported Blackboard as the most utilized technology in their distance school psychology courses. Skype was listed as the second most frequently utilized technology by both directors (14.3% online, 21% hybrid) and students (20% online, 15.9% hybrid). For a full list of technology reported by school psychology students and school psychology directors, refer to Tables 5 and 6. In addition to multiple-choice options, students and directors were able to write in additional forms of technology utilized. Open-ended responses indicated a significant overlap across online and hybrid courses. From the open-ended responses, Canvas was rated as a frequently utilized learning management system for both directors (n = 3 online, n = 3 hybrid) and students (n = 13 online, n = 15 hybrid) for both online and hybrid courses. Desire to Learn (D2L) was ranked as the next most utilized type of technology by both program

directors (n = 2 online, n = 3 hybrid) and students (n = 9 online, n = 5 hybrid) within the write-in responses. Other technology endorsed at less frequent rates within the open-ended, write-in responses included: VoiceThread, GoToMeeting, Google Doc, Live Text, Webcourses, Zoom, Lync, email, YouTube, ELearn, Western Online (school browser), Coursera, BlueJeans, ECollege, student presentations, email, video, CourseSite, Campus Cruiser, and Edthena.

Research Question 2: What instructional components and resources were considered most helpful and valuable for students who took online and hybrid/blended courses in school psychology?

Student participants reported preferences for instructional components and resources for online and hybrid courses separately (Table 7). Tests, quizzes, and assignments were endorsed most frequently to be helpful components by students in both online (65.3%) and hybrid courses (56.1%). Other valuable resources indicated in online courses included Voice Thread discussions, video discussions, student presentations, timely feedback from professors, PowerPoint slides, ability to redo tests and quizzes to better learn the material, course textbook, and examples of real-life situations from the field shared by faculty and students. Additional helpful resources noted by students in hybrid courses included face-to-face discussions.

Research Question 3: What additional resources and supports were typically available for students who took online or hybrid/blended courses in school psychology?

School psychology students were asked about resources and supports available to them for online and hybrid courses separately (Table 8). A majority of students for both hybrid and online courses reported that they had access to the following three things:

- Advanced technology (83.2% online, 80.5% hybrid),
- Face-to-face meetings with their professors (77.9% online, 86.5% hybrid), and
- Technology support staff (60% online, 63.4% hybrid).

Additional support for online courses included phone conferences with professors.

DISCUSSION

While other fields in postsecondary education have increased online and hybrid course offerings, applied graduate psychology programs, particularly the field of school psychology, appears to lag behind and remain predominantly focused on traditional face-to-face course offerings, despite school psychology students indicating they would like more distance education courses (Viola et al., 2019). Offering more distance learning courses has the potential to improve the shortage of school psychologists, particularly in rural areas, and to attract nontraditional students to the field (NASP, 2017). Understanding students' preferences for instructional components and the available technologies to utilize in distance education may guide faculty in designing and implementing effective online and hybrid/blended courses in graduate training programs.

Program directors and students reported that Blackboard and Skype were the top two forms of technology utilized in their online and hybrid school psychology courses, with trends showing a slight increase in their utilization within fully online courses. Despite the availability of an overabundance of applications, programs, and forms of technology available to instructors, only a small percentage of participants endorsed utilizing newer technology products. This indicates that school psychology program instructors may benefit from additional training in regard to available forms of technology and how to utilize more advanced technology in their distance education courses.

Tests, quizzes, and assignments were most frequently endorsed as helpful components by students in both online (65.3%) and hybrid courses (56.1%). It appears traditional instructional components geared at gauging student knowledge and mastery of the material are still valued by students and considered the most important and helpful components, even in virtual classroom settings. These components also facilitate interaction and feedback between the instructor and students, which has been found to increase student satisfaction in distance education courses (Fedynich et al., 2015). Many students also reported that discussion boards, vignettes/case studies, email and Blackboard messages, and videos were helpful components in both hybrid and online courses. Finding a balance between traditional

course content, measuring student outcomes, and applying innovative technology will continue to be a necessity for instructors within applied graduate psychology programs.

A majority of students for both hybrid and online courses reported that they had access to advanced technology, in-person meetings with their instructors, and technology support staff. Students perceive the availability of both instructional and technology staff as helpful within the virtual classroom experience, which may increase course facilitation and content delivery. Despite the number of students reporting taking distance education courses, approximately 1/3 of the students within the current study (31.6% online and 32.9% hybrid) reported receiving training on advanced technology tools utilized in their courses. School psychology training programs may wish to incorporate training components not only for instructors but also for students on the technology utilized in their courses.

Implications for Training

This study has revealed an opportunity for growth in regard to instructional technology in school psychology courses. Currently there are no standards or outlined examples of how to incorporate technology, such as live video conferencing and interactive documents, into school psychology courses (NASP, 2017); however, there is literature on the topic in related areas that instructors who would like to expand their instructional technology components can utilize. For example, Martin (2019) outlined several strategies for utilizing technology for building relationships and increasing engagement in online classrooms. Additionally, Wagner, Enders, and Pirie (2016) discussed best practices for incorporating live or synchronous video conferences into an online course. School psychology faculty and other instructors in applied graduate programs may need to consider how to integrate synchronous components into their courses in an effective manner, given the important skills they are teaching students related to assessment, consultation, and intervention of child and adult mental health needs.

Formats often referred to as Web 2.0, which include more contemporary, collaborative formats such as GoogleDocs, Wiki tools/documents, and blogs, are being utilized at very low rates in school psychology courses. Additional studies should ascertain if this is due to a lack of training and exposure to these technologies, or if the applied nature and advanced applied content of graduate-level school psychology courses do not lend themselves to these instructional technologies. While no studies currently exist in regard to school psychology courses utilizing more contemporary technologies, Hsiao and Huang (2019) discuss and outline how Wiki's were utilized to foster knowledge development, application, and personal management. When looking to related literature to find additional guidance, Park (2013) highlights the features of many instructional technologies, along with examples of how these can be incorporated into coursework. Levin-Goldberg (2014) also outlines best practices for utilizing Webquests, which can be applied to interactive collaborative assignments.

Limitations

As an exploratory study, there were several limitations to this study. First, the small sample size prohibits a full understanding of school psychology graduate students' preferences and experiences with distance education. Due to the low response rate, the sample may not adequately reflect the graduate student and faculty population in school psychology. In addition, due to the delivery method of the student survey (e.g., emailed to directors of school psychology programs), program director perceptions of distance education could have influenced and skewed the response rate and led to sampling error. Additional studies using various sampling techniques are needed to better understand distance education and trends in school psychology, as well as in various applied and professional training programs. With data that are more robust, there may arise the need for advanced quantitative analysis techniques.

Given that this was an exploratory study, the study analyses were conducted using descriptive statistics. Variables related to which forms of technology, how instructors utilize technology within their courses (synchronous vs. asynchronous), and the quality of course instruction and the underlying reasons for student preferences were not measured in the context of this study. While this preliminary information is important, further studies examining these variables using more advanced data analysis should be considered as a next step to advance understanding and

instructional components in the field.

Finally, this study emphasized preferences of graduate students and instructional technology utilized in programs focused in the area of school psychology in the United States. School psychology represents a specific area of advanced psychology training and may represent unique distinctions when compared to other graduate psychology areas. Other applied psychology fields, such as clinical, counseling, or forensic psychology programs, may consider the information from the current study, but it is likely that additional research is needed to address the varying needs of diverse psychology subfields.

Future Directions

The findings from this study uncovered preliminary findings about the types of technology, instructional components, and resources currently utilized in school psychology programs. The findings indicate that traditional forms of technology (e.g., Blackboard and Skype) appear to be the most predominant technologies utilized. Hendricker et al. (2017) indicated that of training directors who had taught a distance education course, 80% indicated they had not received adequate training on how to teach distance education courses. It appears that it would be beneficial to the field to have increased training on various forms of technology that can be utilized in the classroom. Future research should examine if advanced instructional technology maximizes learning outcomes and student experiences within school psychology courses.

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Tables

Table 1 Descriptive Characteristics of Students Who Have Taken an Online Course (N=97)

Demographic Variable	Category	Sample Size (%)
Biological Sex	Female	89 (91.8)
	Male	8 (8.2)
Ethnicity/Race	White/Caucasian	82 (84.5)
	Hispanic/Latino	14 (14.4)
	More than one race	10 (10.3)
	African American	5 (5.2)
	Asian	3 (3.1)
	American Indian or Alaskan Native	2 (2.1)
	Native Hawaiian or Other Pacific Islander	1 (1.0)
Degree(s) Pursuing	Specialist degree	57 (58.8)
	Master's degree	49 (50.5)
	PhD	34 (35.1)
	PsyD	6 (6.2)
Enrollment Type	Full time	73 (76.0)
	Part time	23 (24.0)
Year in Program	First	20 (20.6)
	Second	33 (34.0)
	Third	33 (34.0)
	Fourth	7 (7.2)
	Fifth	3 (3.1)
	Six or more years	1 (1.0)
Location of Program	Northeast	16 (16.5)
	Midwest	28 (28.9)
	South	42 (43.3)
	West	9 (9.3)
	Puerto Rico	2 (2.1)
Online Course History	Prior to School Psych Program	75 (78.1)
Hybrid/Blended Course History	Prior to School Psych Program	50 (51.5)
	During School Psych Program	55 (56.7)
Distance from College	< 15 miles	54 (55.7)
	16–30 miles	9 (9.3)
	31–45 miles	5 (5.2)
	Over 45 miles	29 (29.9)
Employment	Part time	26 (26.8)
	Full time	42 (43.3)

Table 2 Descriptive Characteristics of Students Who Have Taken a Hybrid Course (N=82)

Demographic Variable	Category	Sample Size (%)
Biological Sex	Female	75 (92.6)
	Male	6 (7.4)
Ethnicity/Race	White/Caucasian	62 (75.6)
	Hispanic/Latino	15 (18.3)
	More than one race	6 (7.3)
	African American	6 (7.3)
	Asian	2 (2.4)
	American Indian or Alaskan Native	1 (1.2)
	Native Hawaiian or Other Pacific Islander	2 (2.4)
Degree(s) Pursuing	Specialist degree	65 (79.3)
	Master's degree	46 (56.1)
	PhD	24 (29.3)
	PsyD	7 (8.5)
Enrollment Type	Full time	66 (81.5)
	Part time	15 (18.5)
Year in Program	First	14 (17.1)
	Second	25 (30.5)
	Third	37 (45.1)
	Fourth	6 (7.3)
	Fifth	0 (0.0)
	Six or more years	0 (0.0)
Location of Program	Northeast	12 (14.6)
	Midwest	31 (37.8)
	South	25 (30.5)
	West	11 (13.4)
	Puerto Rico	3 (3.7)
Hybrid/Blended Course History	Prior to School Psych Program	50 (51.5)
Online Course History	Prior to School Psych Program	59 (72.0)
	During School Psych Program	46 (53.5)
Distance from College	< 15 miles	40 (48.8)
	16–30 miles	13 (15.9)
	31–45 miles	6 (7.3)
	Over 45 miles	23 (28.0)
Employment	Part time	22 (26.8)
	Full time	34 (41.5)

Table 3 Descriptive Characteristics for Directors That Teach in Programs Offering Online Courses (N=21)

Demographic Variable	Category	Sample Size (%)
Biological Sex	Female	11 (53.4)
	Male	10 (47.6)
Program Type	Masters	1 (4.8)
	Masters and Specialist	1 (4.8)
	Specialist	13 (61.9)
	Specialist and Doctoral	4 (19.1)
	Doctoral	2 (9.5)
Number of Years as Program Director	1–5 years	9 (42.9)
	6–10 years	4 (19.0)
	11–15 years	3 (14.3)
	16–20 years	2 (9.5)
	More than 20 years	3 (14.3)
Number of Years Teaching in a School Psychology Program	1–5 years	3 (14.3)
	6–10 years	3 (14.3)
	11–15 years	6 (28.6)
	16–20 years	5 (23.8)
	More than 20 years	4 (19.0)
Course History	Taken an Online Course	7 (33.3)
	Taken a Hybrid Course	3 (14.3))
Teaching Course History	Taught an Online Course	15 (71.4)
	Taught a Hybrid Course	19 (90.5)

Table 4 Descriptive Characteristics for Directors That Teach in Programs Offering Hybrid Courses (N=19)

Demographic Variable	Category	Sample Size (%)
Biological Sex	Female	13 (68.4)
	Male	6 (31.6)
Program Type	Masters	1 (5.3)
	Masters and Specialist	1 (5.3)
	Specialist	14 (73.7)
	Specialist and Doctoral	3 (15.8)
	Doctoral	0 (0.0)
Number of Years as Program Director	1–5 years	11 (57.9)
	6–10 years	5 (26.3)
	11–15 years	3 (15.8)
	16–20 years	0 (0.0)
	More than 20 years	0 (0.0)
Number of Years Teaching in a School Psychology Program	1–5 years	4 (21.1)
	6–10 years	5 (26.3)
	11–15 years	6 (31.6)
	16–20 years	3 (15.8)
	More than 20 years	1 (5.3)
Course History	Taken an Online Course	7 (36.8)
	Taken a Hybrid Course	3 (15.8))
Teaching Course History	Taught an Online Course	13 (68.4)
	Taught a Hybrid Course	16 (84.2)

Table 5 Technology Reported by School Psychology Students

Technology	Mode of Instruction and Percent of Students Endorsed	
	Online Format (N=95)	Hybrid/Blended Format (N=82)
Blackboard	64.0% (n=61)	59.5% (n=49)
Skype	20.0% (n=19)	15.9% (n=13)
Adobe Connect	5.3% (n=5)	7.3% (n=6)
Sakai	5.3% (n=5)	3.7% (n=3)
Moodle	5.3% (n=5)	2.4% (n=2)
Google Hangout	5.3% (n=5)	2.4% (n=2)
ESchool	2.1% (n=2)	1.2% (n=1)
Tegrity	0.0% (n=0)	0.0% (n=0)
Other	45.3% (n=23)	40.2% (n=33)

Table 6 Technology Reported by School Psychology Directors

Technology	Mode of Instruction and Percent of Directors Endorsed	
	Online Format (N=21)	Hybrid/Blended Format (N=19)
Blackboard	52.4% (n=11)	57.9% (n=11)
Skype	14.3% (n=3)	21.0% (n=4)
Tegrity	14.3% (n=3)	5.3% (n=1)
Google Hangout	9.5% (n=2)	0.0% (n=0)
Adobe Connect	9.5% (n=2)	5.3% (n=1)
Sakai	4.8% (n=1)	5.3% (n=1)
Moodle	4.8% (n=1)	5.3% (n=1)
ESchool	0.0% (n=0)	0.0% (n=0)
Other	52.4% (n=11)	42.1% (n=8)

Table 7 Instructional Techniques and Resources Ranked Most Helpful by Students

Technique/Resource	Mode of Instruction and Percent of Students Endorsed	
	Online Format (N=95)	Hybrid/Blended Format (N=82)
Test, Quizzes, & Assignments	65.3% (n=62)	56.1% (n=46)
Discussion Board	63.2% (n=60)	46.3% (n=38)
Vignettes/Case Studies	60.0% (n=57)	41.5% (n=34)
Email and Blackboard Messages	60.0% (n=57)	50.0% (n=41)
Videos	56.8% (n=54)	40.2% (n=33)
Announcements	47.4% (n=45)	31.7% (n=26)
Face-to-face Lectures	*	52.4% (n=43)
Web Links	46.3% (n=44)	35.4% (n=29)
Hard Copies of Materials	42.1% (n=40)	43.9% (n=36)
Video Recorded Lectures	42.1% (n=40)	31.7% (n=26)
Live Chat Sessions	35.8% (n=34)	19.5% (n=16)
Live Meetings via technology	25.3% (n=24)	20.7% (n=17)
Interactive Documents	27.4% (n=26)	18.3% (n=15)
Group Projects	13.7% (n=13)	0.0% (n=0)
Peer Mentor	10.5% (n=10)	5.0% (n=4)
Other	6.3% (n=6)	2.4% (n=2)

Note. * Indicates a question that was not asked of online courses

Table 8 Additional Resources and Support Available to Students

Resource/Support	Mode of Instruction and Percent of Students Endorsed	
	Online Format (N=95)	Hybrid/Blended Format (N=82)
Access to Advanced Technology	83.2% (n=79)	80.5% (n=66)
Face-to-Face Meeting with Professor	77.9% (n=74)	86.5% (n=71)
Technology Support Staff	60.0% (n=57)	63.4% (n=52)
University Equipment	37.9% (n=36)	47.6% (n=39)
Training on How to Use Advanced Technology	31.6% (n=30)	32.9% (n=27)
Other	4.2% (n=4)	1.2% (n=1)